

R E M A R K S

The specification has been corrected in response to the objections set forth in numbered paragraphs 1 and 2 of the Office Action, and claim 11 has been amended in response to the rejection under 35 U.S.C. §112, second paragraph. Claims 12 - 22 inclusive have been cancelled, to expedite prosecution but without prejudice to the scope of protection to which applicants are believed to be entitled. Attached hereto is a marked-up version of the changes made to the claims by the present Amendment, captioned "Version with markings to show changes made." Since this Amendment does not increase either the total number of claims or the number of independent claims, no additional fee is necessary.

Claims 1 - 11, 23 and 24 are in the application. No claim has been allowed.

Objections to the Disclosure and Specification

The charge controlling agent compound referred to in the Examples at p. 26, line 18, p. 30, line 6, and p. 32, line 23 as "having formula 1-20" is in fact the charge controlling agent compound having formula (7). Note formula No. 20 in Table 4 at p. 20 in application No. 09/434,472 (of record, submitted with applicants' Information Disclosure Statement mailed May 10, 2001), referred to e.g. at p. 39, line 13, in the same application as "formula 1-20." The cited lines in the present specification have been corrected accordingly, to overcome the objection to the disclosure (Office Action, p. 2, numbered paragraph 1).

The passage at p. 16, lines 23-25, has been amended to provide support for the recitals of "at least three image bearing members" in original claims 10 and 11, and thereby to overcome the objection to the specification as failing to provide proper antecedent basis for these claims (Office Action, p. 2, numbered paragraph 2). Since the latter claims constitute part of the original disclosure, no new matter is added by this amendment.

The §112 Rejection

In response to the rejection of claim 11 under 35 U.S.C. §112, second paragraph, as incomplete, the claim has been amended to add a recital of the step of "transferring the full color image onto the receiving material." This added recital is supported by the disclosure of the original specification at p. 16, lines 19-21. It is submitted that the amendment thus made fully and self-evidently overcomes the sole stated ground of the §112 rejection.

Rejections of Claims 12 - 22

All grounds of rejection of claims 12 - 22 (including those set forth in numbered paragraphs 8-13 on pp. 4-12 of the Office Action, and also the provisional obviousness-type double patenting rejection set forth in paragraph 19 on pp. 29-30 of the Action) have been rendered moot by the cancellation of these claims herein, and therefore need not be discussed.

Rejections of Claims 1 - 11, 23 and 24 under §103

Each of claims 1 - 11, directed to a method for forming a full color image, and 23 and 24, directed to image forming apparatus, has been rejected under 35 U.S.C. §103(a) on one or more of the following grounds of rejection:

- (1) unpatentability over Elsermans et al. in view of (i) JP '982 or (ii) Iwasaki et al. and *Industrial Organic Pigments*, with which Kuramoto et al. is combined in the rejection of claims 4 and 5;
- (2) unpatentability over Aoki et al. in view of Moser and further in view of (i) JP '982 or (ii) Iwasaki et al. and *Industrial Organic Pigments*, with which Kuramoto et al. is combined in the rejection of claims 4 and 5;
- (3) unpatentability over Takahashi et al. in view of Moser and further in view of (i) JP '982 or (ii) Iwasaki et al. and *Industrial Organic Pigments*, with which Kuramoto et al. is combined in the rejection of claims 4 and 5;

(4) unpatentability over Hata in view of Moser and further in view of (i) JP '982 or (ii) Iwasaki et al. and *Industrial Organic Pigments*, with which Kuramoto et al. is combined in the rejection of claims 4 and 5.

Method claim 1, on which all of claims 2 - 11 are directly or indirectly dependent, recites a method of forming a full color image including the features of (a) fixing the image upon application of heat while not contacting the image, (b) using a particular combination of specific defined types of yellow, magenta and cyan pigments and (c) positioning the yellow toner image closer to the receiving image than any other color toner image.

Applicants' specification explains (p. 2, lines 14-22) that problems of good color reproducibility have heretofore been "prominent in the color images which are fixed with a non-contact type heat fixing method . . . rather than a heat roller fixing method." Further, the specification sets forth (p. 6, line 19 - p. 7, line 7) that the particular combination of specific types of toners designated feature (b) above, when used with feature (a), non-contact fixing, achieves image qualities that are better than those resulting from non-contact fixing of images formed of conventional color toners, and if in addition feature (c) is present, i.e., if the yellow toner image has the lowest position (in contact with the receiving material), the image qualities are as good as those of the color toner images fixed by a roller fixing method, although without feature (c) the image qualities would still be inferior to the image qualities of images fixed by a roller fixing method.

Consequently, the claimed combination of features (a), (b) and (c) achieves the beneficial result of image qualities, in a non-contact-fixed full color image, that are not only better than those produced with conventional toners, but are as good as those attainable by roller fixing.

Claim 1 is rejected under §103(a) on all four of the grounds listed above. In these grounds of rejection, Elsermans et al., or

any of Aoki et al., Takahashi et al. and Hata in view of Moser, are relied on for features (a) and (c), viz., non-contact fixing and positioning the yellow image closest to the receiving material, while the secondary references (i) or (ii) are relied on for feature (b), the particular combination of specified types of yellow, cyan and magenta pigments. It is acknowledged that no reference discloses any use of the feature (b) combination of pigments with Feature (a), a non-contact fixing method. The Examiner contends that it would have been obvious to use the color toners of the secondary references (i) or (ii) in the image forming method of Elsermans et al. or the image forming methods assertedly rendered obvious by any of Aoki et al., Takahashi et al. and Hata in view of Moser, because the artisan of ordinary skill would have had a reasonable expectation of successfully obtaining a cost effective and reliable image forming method that is capable of providing full color images having desired gloss and/or color saturation properties and/or long repeatable use and/or having the benefits disclosed by the secondary references (i) or (ii).

Applicants respectfully submit, however, that the beneficial result they achieve by their claimed combination of features (a), (b) and (c) as defined in claim 1 -- a full color image, produced by non-contact fixing, with image qualities as good as those attainable by a roller fixing method -- is entirely unobvious and unexpected from the references, whether considered separately or together; and that, under settled principles of law, such an unexpected beneficial result is entitled to patentable weight.

There is, in short, nothing in any reference, or any combination of the references, to suggest that by using the toner pigment combination of applicants' feature (b) in a non-contact fixing method, with any order of deposition of images, the inferiority of full color image quality heretofore associated with non-contact fixing could be overcome. The advantages assertedly shown by the secondary references (i) or (ii) for the toner pigment combination of feature (b) are unrelated to problems of

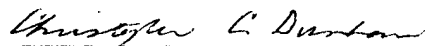
image quality in non-contact fixing. The references relied on for non-contact fixing (and order of deposition of the yellow image) are silent with respect to the compositions of feature (b), and contain nothing that would suggest to the person of ordinary skill in the art, even having secondary references (i) or (ii) at hand, that applicants' beneficial result could be attained by using the toners of the latter in the methods of the former references.

It is therefore submitted that the recitals of features (a), (b) and (c) in claim 1, defining a combination that is novel and achieves an unexpected beneficial result, present a patentable distinction over each of the combinations of references applied in the §103(a) rejection. Claims 2 - 11, being dependent on claim 1, are believed allowable therewith.

By a parity of reasoning, apparatus claim 23 is submitted to distinguish patentably over the asserted combinations of references in reciting an image forming device containing the toners of feature (b) as discussed above and comprising, *inter alia*, a non-contact fixing device. Again, the combination is novel, and this novel combination provides an unexpected beneficial result. Claim 24 is believed allowable by virtue of its dependence on claim 3.

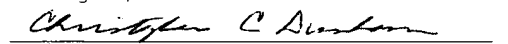
For the foregoing reasons, it is believed that this application is now in condition for allowance. Favorable action thereon is accordingly courteously requested.

Respectfully,



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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to Assistant Commissioner for Patents, Washington, D.C. 20231.


Christopher C. Dunham
Reg. No. 22,031 Date JULY 29, 2002

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Serial No.: 09/845,449

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 16, the paragraph beginning at line 23 has been replaced with the following paragraph:

--In the full color image forming method, plural image bearing members (e.g. at least three image bearing members, for development with at least the yellow toner, the magenta toner and the cyan toner, respectively) may be used to form the respective color toner image thereon. The plural color toner images are transferred on an intermediate transfer medium or a receiving material.--

Page 26, the paragraph beginning at line 14 has been replaced with the following paragraph:

--The following components were mixed, and then melted and kneaded with a two-roll mill.

Polyol resin (B)	100
Master batch pigment prepared above	6
Compound having formula [1-20] <u>(7)</u>	3
(Charge controlling agent)--	

Page 30, the paragraph beginning at line 2 has been replaced with the following paragraph:

--The following components were mixed, and then melted and kneaded with a two-roll mill.

Polyol resin (A)	100
Master batch pigment prepared above	6
Compound having formula [1-20] <u>(7)</u>	3
(Charge controlling agent)--	

Page 32, the paragraph beginning at line 19 has been replaced with the following paragraph:

--The following components were mixed, and then melted and kneaded with a two-roll mill.

Polyol resin (A)	100
Master batch pigment prepared above	5
Compound having formula [1-20] <u>(7)</u>	4
(Charge controlling agent)--	

IN THE CLAIMS:

Claim 11 has been amended as follows:

11. (Amended) The method according to Claim 1, wherein the image forming step further comprises:

developing electrostatic latent images formed on at least three image bearing members with at least the yellow toner, the magenta toner and the cyan toner, respectively, to form color toner images thereon;

transferring the color toner images onto an intermediate transfer medium to form the full color image thereon, and

transferring the full color image onto the receiving material.